



**New Star
Environmental LLC**

"Providing Instrumentation for Air Quality"

1 (770) 998 0296



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Two Stage Viable Impactor

The Two Stage Viable Particle Sampler is a multi-orifice cascade impactor that is used whenever a size distribution is not required and only respirable-nonrespirable segregation or total counts are needed.

Microbiological content of air has become a significant environmental concern as the need for "contamination-free" air increases. Viable particulate samplers are used to collect airborne bacteria and fungi.

Meets requirements of NIOSH Method: 0800 BIOAEROSOL SAMPLING (Indoor Air) for identification of culturable microorganisms and assessment of possible proliferation and dissemination of fungi or mesophilic bacteria from building reservoirs.

Ninety-five to one hundred percent of the viable particles above 0.8-microns in an aerosol can be collected on a variety of bacteriological agar. The sampler separates viable particles into two size ranges with the 50% cut-off diameter of Stage 0 at 8.0-microns for spherical particles of unit density.

Typical sampling media recommendations are malt extract agar (MEA) for fungi and trypticase soy agar (TSA) for mesophilic bacteria. Other media may be used, if appropriate, e.g., R2A agar for heterotrophic bacteria and rose bengal agar for slow-growing fungi such as *Stachybotrys*.

There are two issues with all viable particle samplers. First, the particle must be separated from the air for any viability assay and second, the ability to reproduce (viability) must be demonstrated. The New Star viable impactors meet this criteria. The Two Stage Sampler is equipped with 200 precision machined jet orifices per stage versus 400 orifices in the original Six Stage Sampler. The New Star inertial impactors are proven to be most efficient for collection of bioaerosols in both respirable and non-respirable fractions.

The Two Stage Impactor consists of an aluminum inlet cone, two aluminum sampling stages and an aluminum base plate held together by three threaded studs and sealed with o-ring gaskets. Each sampling stage has 200 precision machined jet orifices. The Two Stage Viable Impactor operates at a flow rate of exactly 28.3 lpm (1 CFM).

FEATURES

- Inspected by our advanced digital video optical comparator
- Meets requirements of NIOSH Method 0800
- Cost effective
- Ease of operation, calibration, sterilization and setup
- Based on the principle of inertial impaction
- Visual verification of flow rate possible
- Corrosion resistant body

Product ID #:

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Specifications:

Cut-points (Aerodynamic) Stage 0 = 8.0 •m and above; Stage 1 = 8.0 to 0.8 •m

Impactor Dimensions 5" (12.7cm) high; 4.75" (12.1cm) diameter

Impactor Weight 2.8 lbs. (1.27 kg)

Pump Dimensions, L x W x H 11 x 5 x 5" (28 x 12.7 x 12.7cm)

Pump Weight 11 lbs. (5 kg)

Carrying Case Dimensions, L x W x H 22 x 6 x 10" (55.9 x 15.2 x 25.4cm)

Carrying Case Weight 4 lbs. (1.8 kg) empty; 17.8 lbs. (8.1 kg) with impactor & pump

Flow Rate Calibrated for operation at 28.3 lpm (1 CFM)

Calibration Air flow calibration performed by primary standard calibration device (dry gas meter)